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SUBJ: Quit and Interrupt Conditions: A Proposal

1. The Quit Signal- (code 57_8 received by Supervisor)
    Effects the following actions:

    a. The supervisor immediately responds with
        quit message.

    b. Output and Input Buffer are destroyed.
        (Hopefully in the future it will be possible
        to save most input and output.)

    c. ALL machine conditions and pseudo-machine
        conditions (user conditions) will be SAVED.
        and RESET.

    d. The unit (console) will be placed at command
        level.

2. The Interrupt Signal- (code 17_8 received by Supervisor)
    Effects the following actions:

    a. Supervisor responds with interrupt message.
        (If user at interrupt level 0, appropriate
        comment such as "NO ACTION" should be output.)

    b. NO machine conditions or pseudo-machine
        conditions will be saved or destroyed.

    c. The supervisor will transfer control to the
        proper location as set by the interrupt
        level logic.

Requirements and Implementation

1. All machine conditions and pseudo-machine conditions
    can be set, reset and non-destructively tested.

2. The 7750 (in the case of teletypes and 1050's) will
    determine the difference between an interrupt signal
    and a quit signal and generate the proper code on the
    following basis:

    1. When a "break" is received, the 7750 will
        set a timer and will read the line.

    2. If another "break" is received before the
        timer goes to zero:
            A quit character is generated.
        Otherwise:
            An Interrupt character is generated.

3. The timer setting should be long enough to allow
    two "breaks" to be hit comfortably; short enough
    to allow quick respone to the character.
             Around 2-3 seconds seems reasonable.

3. The Break Procession and Supervisor will be programmed
    to handle this new character.